EXHIBIT F PROGRAM DISTRIBUTOR AUTHORIZATION BY PROGRAMMER

PROGRAMMER NAME:		
PROGRAMMER ADDRESS:		
_		
AUTHORIZED PROGRAM DIST	RIBUTOR:	
NAME:		
ADDRESS:		
AUTHORIZED PROGRAM SERV	VICE(S):	
NAME	TIER BIT NO.	EFFECTIVE DATE

The undersigned Programme	r hereby authorizes	
(Program Distributor) for the Program! Until receipt by DBS Authorization, effective DBS Authorization Center, Inc.	gram Services listed herein. on Center, Inc. of a written	notice, signed by Programmer,
PROGRAMMER:	PROGRAM DISTR	RIBUTOR:
NAME	NAME	
DATE	DATE	
RY		

Amendment to DBS Center Agreement Dated November 20, 1986 for Programmer and Program Distributor (the "Agreement")

- This Amendment applies only to Users of the Center who are domestic common carriers or Canadian satellite common carriers and who own or lease Scramblers to scramble the satellite television signal feed(s) for consumer programming subscription services.
- 2. The following portions of the Agreement are amended as follows:
- 3.1 Programmer Users. The Programmer category will consist of entitles transmitting television programs via satellite which also become:
 - (a) A user of Scrambiers for scrambling its satellite television signal feeds (or in the case of a common carrier, the satellite signal of the provider) whether such user itself owns and operates the Scrambier or contracts with a third party which owns a Scrambier and which provides scrambling services; and
 - (b) An owner of TVRO distribution rights to the programming material being transmitted or a common carrier of such programming material; and
 - (c) A provider of such satellite television programming directly to consumers on a subscription or other pay-TV basis which may include advertising (such programming being offered by the programmer or through authorized program distributors) or a common carrier of such provider.
- 3.2 Program Distributor Users. The program Distributor Category will consist of entities (which may be Programmers) (a) which are expressly authorized by one or more Programmers to sell subscriptions for programming services to TVRO owners (such authorization to be communicated to Centercorp by a written notice of such authorization delivered to Centercorp by such programmer), or which are a common carrier of such Programmer or of such programming material, (b) which notify Centercorp that they wish to utilize a Port, and (c) which then execute an agreement with Centercorp similar to this Agreement (a "Program Distributor Agreement"). Each Program Distributor shall be required to connect to the Center via a Port through which it will advise the Center's computers concerning which subscribers should be authorized or deauthorized for each programming service with respect to which such Program Distributor has been authorized by a Programmer. In addition, a Program Distributor may be authorized by a Programmer to relay to the Center such authorizations and deauthorizations of subscribers received from other distributors which have been authorized by such Programmer to sell programming services to subscriber; provided that for purposes of each Program Distributor Agreement, such subscribers will be deemed to be subscribers of the Program Distributor, so that if the Program Distributor loses its authorization rights, all such other distributors will lose their authorization rights until they negotiate appropriate arrangements with another authorized Program Distributor.

6.3 Obligation to Pay. Upon execution of an agreement with Centercorp (this Agreement as to Customer), and upon election to extend such an agreement for a Renewal Term, each User shall become fully obligated to pay all amounts due under such an agreement with respect to the respective term. In the event that any User falls to fulfill its obligations under such an agreement, including any User which is terminated as described in Section 5 hereof, or is terminated as described in Section 3.2 hereof, then in any such event such User shall continue to be obligated for all amounts which would have been payable by such User during the balance of the initial Term or Renewal Term, as the case may be, then in effect, and Centercorp shall be entitled to initiate all legal actions and other actions as may be necessary to collect such amounts. However, upon the request of any User withdrawing or terminating prior to the expiration of the term of such an agreement then in effect for such User, Centercorp shall poll all other Users, and if such other Users unanimously consent to such waiver, Centercorp will waive unpaid amounts due from such withdrawing or terminated User (it being understood that such waived amounts shall be recovered from other Users through Charges to such Users recalculated as described in Section 6.1).

Notwithstanding the above, a User who is a common carrier and who withdraws from or terminates this Agreement prior to the expiration of the initial Term or any Renewal Term shall not be obligated to pay for the unexpired portion of such Term, provided that the User is prevented from continuing utilizing the Center by an action of the United States Government. United States Government action is defined as any acts of Congress (which become law) and/or lawfully issued judicial orders prohibiting the User from continuing the provision of its satellite scrambled signal for all of the User's home TVRO programming subscription services provided through the Center.

Exhibit A

Paragraph 6(d) is deleted for Canadian Users only.

Addendum to DBS Authorization Center Agreement for Programmer and for Program Distributor

This Addendum clarifies the following provisions:

1. Subscriber data

- a. Each Programmer shall be entitled to the unit address number, service authorization and zip code ("Subscriber Data") of the subscribers of any of the services of such Programmer which a Program Distributor has authorized. Centercorp shall provide the above Data to (i) any Programmer who terminates or does not renew its Programmer Agreement with Centercorp; (ii) in the event of termination of the Center; or (iii) in the event of termination of a Program Distributor Agreement. The data shall be current as of the effective termination date, and shall be a permitted disclosure under the security and confidentiality provisions of the Agreement.
- b. The obligations of the parties under the security and confidentiality provisions of the Agreement shall survive any termination or non-renewal of the Agreement.
- c. The provision of the Subscriber Data as described in 1(a) above is included in the provision of services and data contemplated by the Agreement.

2. Maximum Number of Ports

There is no maximum number of Ports assignable to a Program Distributor. Expansion lead times for Ports should not exceed 90-120 days.

3. Charges for Basic Services

- a. The amortization method referred to in Section 4 is the straight-line method.
- b. The acquisitions referred to in Section 4, Paragraph (d) shall be reasonable. Acquisition of equipment shall be restricted to support and be reasonable and necessary to meet all the specifications, including Exhibit A, in the Agreement.
- c. The subparagraphs included in Paragraph (f) of Section 4 [subparagraph (l), (li), (iii)] shall also be applicable to Paragraph (e) of Section 4 to the extent that said funds are borrowed from Parent, Subsidiary or Affiliate companies of Centercorp after commencement of operations.
- d. The bonus pool as described in Section 4, Paragraph (g), shall be based upon the following criteria:
 - i. Fifty percent (50%) of the available bonus will be earned on a discretionary basis. Performance criteria which will be evaluated in determining the specific discretionary bonus amount shall be as follows:

- 1. Timely reporting to Users.
- 2. Appropriate management of staff.
- 3. Adherence to operating procedures.
- 4. Documentation of Center operating performance.
- 5. Planning of future capital requirements and acquisition of capital to support the Basic Service and expansion requirements.
- 6. Management of vendors.
- 7. Other criteria deemed pertinent by Centercorp management.
- II. Fifty percent (50%) shall be attributable to the reduction of scheduled Outages. There shall be no bonus penalty for the first sixty (60) hours of unscheduled Outages. Beginning with Outage hour sixty-one (61) through Outage hour one hundred and thirty (130), there will be a direct pro-rata reduction for each subsequent Outage hour to be applied to the available bonus of fifty percent (50%) as described herein.
- e. Costs incurred by Centercorp for the expansion of the number of Ports needed for Program Distributors who are or become Users of the Center shall be part of Eligible Costs as set forth in Paragraph 4 (d) of the Agreement.
- f. An Eligible Cost is the definition of Costs which are reimbursed by the Users of the DBS Center. Eligible Costs are all ordinary, necessary, reasonable expenditures required to meet Basic Service requirements, reliability, and specifications as described in the Agreement, including, but not limited to, Section 10(a) and Exhibit A. The intent of Section 4 of the Agreement is to specifically identify certain Eligible Costs which are ordinary.
- g. All Users will be provided the same terms, conditions and prices for the use of the Basic Service as defined in the Agreement.

4. Other Activities of Centercorp

Expenditures as used in Article 9 include non-recurring expenses and costs and, accordingly, would not be included as Eligible Costs.

5. Assignment by Customer

Centercorp's consent to an assignment by Customer under Article 13 of the Agreement is subject to the implied covenant of good faith, and will not be unreasonably withheld.

6. Reimbursement for Cost Incurred for New Customers

Centercorp's right to reimbursement under Paragraph 3 of Exhibit B, Section I, pertains to the costs and expenses incurred by Centercorp in order to enable Centercorp to provide the services contemplated by the Agreement with such Programmer.

7. Users Right to Review Eligible Costs

- a. Users right to review financial statements prepared by Centercorp under Article 7 of the Agreement includes all expenditures incurred by Centercorp pursuant to Article 7 - Charges for Basic Service, which Charges are included in Eligible Costs.
- b. Under the terms of Section 7(a), should Users retain certified public accountants to review Eligible Costs, said certified public accountants may review future forecasts of Eligible Costs for the immediate forthcoming year. The costs of retaining the certified public accountants to review such future forecasts shall be the sole responsibility of the Users.

8. Increases in Estimated Eligible Costs

- a. The estimated budget for Eligible Costs provided by Centercorp in September of each year for the following calendar year shall not be exceeded by more than ten percent (10%) during such subsequent year unless all Users agree to share the portion of Eligible Costs over and above the one hundred and ten percent (110%) of such estimated amount.
- b. The intent of Item 8(a) is such that should Centercorp exceed by more than ten percent (10%) the projected budget, such excess shall not be an Eligible Cost and, consequently, not subject to reimbursement by Users. However, Parent will not be required to absorb these costs as non-Eligible Costs should the Users all agree to share the portion of Eligible Costs over and above the one hundred and ten percent (110%) of said estimated amount.

9. Representations of Common Carrier Users Regarding Litigation Matters

The representations by a Common Carrier User do not include representations regarding the pending copyright issue with respect to consumer home TVRO programming service.

10. Indemnification by Users

The scope of indemnification of Centercorp by Users does not include indemnity for patent or copyright infringement by the VideoCipher Scrambling System technology which is proprietary to Centercorp or Parent.

11. Use of Tier-Bits and Ports by Centercorp or Parent

Use of Tier-Bits and Ports by Centercorp and/or Parent is subject to the same charges as any other User of the Center. It is the intent of the Agreement that should Centercorp and/or Parent exercise its rights to reserve and/or use Tier-Bits and/or Ports, they shall pay for the reservation and/or use of said Tier-Bits and Ports on the same basis, and shall be subject to the same financial responsibilities, as any other Programmer and Program Distributor.

12. Failure of Performance by Centercorp

Inward-bound data ("Data") is defined as that transaction and interface Data identified in the DBS Business System/DBS Control Center Interface Specifications. Should the Center not accept Data or not transmit the Data Channel to the outward-bound communications link, it is an Outage for purposes of Section 10 of the Agreement.

13. Force Majeure

As further clarification to the provisions of Article 16, in the event substantial performance by Centercorp is delayed by more than ninety (90) days by any event of Force Majeure, Users' obligations to pay Charges for Basic Service shall be suspended for a period of up to ninety (90) days thereafter or until substantial performance is restored, whichever shall occur first.

14. Exhibits

- a. The Agreement includes all Exhibits listed in the Table of Contents.
- b. The following three (3) clarifications are made to Exhibit D:
 - i. Long-term liabilities will be discounted back to present value at the Parent's cost of capital. Long-term liabilities will include inter-company debt.
 - ii. An independent appraisal will be made of tangible assets.
 - III. To the extent that the Parent has enjoyed tax credits on the acquisition of equipment, they will be included in the figuidation value.

15. Payments

The minimum payment which Centercorp will accept from a User is for three (3) months (one quarter) of applicable Charges payable in advance, provided that such User's account is current. Centercorp reserves the right to impose interest charges on the remaining portion of the annual amount of Eligible Cost which is unpaid. The interest charges shall be at a rate equal to the Prime Rate plus three percent (3%).

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APPENDIX F

TITAN SATELLITE SYSTEMS CORPORATION KEY TEAM MEMBERS

- Steve Schossow BSEE SDSU. Over 13 years experience in hardware systems design. Some video at Oak and Linkabit. Key VLSI development engineer.
- Jim Frost BSEE SDSU. Over 20 years experience as an analog design engineer. Leading Descrambler effort.
- Mike Black MSEE Stanford, BSEE UCLA. Over 5 years experience as digital design engineer. Experience in service communications systems.
- Tom Reiner MSEE San Jose State, BSEE UCSD. Over 10 years experience in hardware systems design. Some video. Key VLSI development engineer.
- Mike Harding BSCS Harvey Mudd. Over 10 years of experience in software systems development with emphasis in cryptosystem design. Is named co-inventor on a 3 key VideoCipher II patent. Worked on VideoCipher I, II and II Plus from 1982-90.
- Don Sturek BSCS Univ of Nebraska. Over 10 years of software development experience including work on the EuroCipher Control Computer software.
- Frank Oliva MSCS SDSU. Over 12 years of experience in software systems development. Worked on the VideoCipher II system from 1984-86 developing Control Computer software.
- Dr. Leo Bluestein PhD Columbia. Over 20 years experience in broadcast, cable and satellite communications systems, including positions in GTE Labs, Oak Industries, M/A Com Linkabit, and now Titan Satellite Systems Corporation. Involved in group that patented fundamental techniques for key distribution in pay T.V. systems. Primary author of the DBS System proposal to the FCC in 1979 on behalf of Oak Industries. Other areas of expertise include (1) Compression System I/C Design (JPEG Standards Committee Member), (2) Digital Video Techniques, (3) Alternative Scrambling Methods, and (4) system engineering for new pay T.V. Systems.
- Dave Wood AS Fullerton CC. Over 12 years in television industry. 1982 84 at Oak Industries and 1984 90 with Linkabit and G.I. Involved in installation and ongoing service of VC II and II plus scrambling systems.
- Chuck Newby BSEE SDSU. Over 16 years experience in hardware systems design. Worked in video systems from 1980-85, joined Linkabit in 1982 as part of Dr. Jerry Heller's HBO development team. Named as inventor of the basic VideoCipher conditional access patent. Worked on VideoCipher I & II. Worked past 5 years in digital signal processing (DSP) systems.